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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,188	03/28/2002	Susan Rebecca Cikanek	200-0529 CLH	4766

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EXAMINER

CAMPBELL, KELLY E

ART UNIT PAPER NUMBER

3618

DATE MAILED: 08/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/063,188

Applicant(s)

CIKANEK ET AL

Examiner

Kelly E Campbell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15, 16 and 30 is/are allowed.
- 6) ☒ Claim(s) 1-6, 13-14 and 17-29 is/are rejected.
- 7) ☒ Claim(s) 7-12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

The preliminary amendment filed 5/2/02 is acknowledged.

Specification

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The

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disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because:

the use of the term "said" in line 4, is improper;

the phrase referring to a claim, "...as described in claim 26...", in line 4 is improper.

the abstract contains several typographical errors, such as in line 4, "...demand reaches a first vehicle 27.A..." ;

and in line 5, "...travel position is0%.operational..." .

Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: the specification includes several typographical errors, for example: line 88, the term "the vehile" and line 89, the term "Denouement", should be modified.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following recitation of claim 17, line 9, is unclear:

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"...said accelerator pedal having a non-constant travel first position...";

It is not understood how the accelerator pedal, could be positioned in a non-constant first travel position. Clarification is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6,13-14,17-22 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank (US 6,054,844) in view of Severinsky et al (US 6,554,088).

Frank teaches a method of powering a hybrid electric vehicle with an electric motor (24) and an internal combustion engine (10);

powering the vehicle with by an electric motor (24) up to a first vehicle operational parameter level (Ao,Se Min), see Column 6, lines 49-56, see lines Column 9, lines 55-67;

powering the vehicle with an internal combustion engine (10) beyond the first vehicle parameter level (Ao,Se,Min), see Column 9, lines 55-67;

wherein the first parameter level is a function of power demand, see Column9, lines 55-62;

determining a torque level of the motor (24) at the first vehicle operational parameter level (Ao) and further determining an accelerator pedal travel first position at the first vehicle operator parameter level (Ao), see Column 9, line s 24-44;

a controller (30) includes a torque sensing means , see for determining a torque level of the motor, see Column 4, lines 35-41, and further includes an accelerator pedal travel sensing mean, for determining positions of the accelerator pedal, see Column 6, lines 8-20;

and fixing a predefined maximum engine torsional output to a predefined accelerator pedal travel second position (Ao,SE), see Column 9, lines 30-33 and 55-58;

the controller (30) for scaling the accelerator pedal travel by a first linear predefined functional relationship from the accelerator pedal travel first position (Ao) to the accelerator pedal travel second position (A1), see Column 10, lines 18-32 and 39-49;

wherein the motor 24) and the engine (10) power a common drive axle (22) of the vehicle, see Figure 6.

Frank does not teach a hybrid vehicle fixing a predefined percentage of a maximum torsional output or a predefined pedal position being within an approximate range.

Severinsky teaches hybrid vehicle comprising a motor and internal combustion engine wherein the engine maximum output torque is constrained to a predefined percentage range of efficient operation, see Column 38, lines 58-65.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the hybrid vehicle with pedal control means to include a predefined percentage range for the maximum engine torsional output as disclosed by Severinsky et al, since the typical ic engine is operated with reasonable efficiency 30-90% of its maximum power, as most vehicles are only require substantial power under conditions of extreme acceleration and are vastly overpowered at most times, thus fuel inefficient.

With regards to claims 3-6, Severinsky defines the predefined percentage of maximum engine torsional output as being 30% and 100% of the engine maximum torque output, thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the specific predefined percentage of maximum output and the accelerator pedal position to be within a specific range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*. 105 USPQ 233.

Allowable Subject Matter

Claims 15-16 and 30 is allowed.

Claims 7-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Claims 23-27 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not specify:

a hybrid electric vehicle including a maximum available motor torque determined on an instantaneous basis wherein when the accelerator pedal is moved beyond the accelerator pedal travel second position, the motor supplies boost torque and the motor is scaled by a second predefined function relationship between the accelerator pedal travel second position and a, maximum accelerator travel position;

or determining an accelerator pedal third position when the vehicle returns below the first vehicle operational parameter level and determining instantaneous maximum torque level of the motor and scaling the accelerator pedal from the travel third opposition to a fixed third predefined percentage.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Usami (US 5,896,283) discloses a power system for an electric vehicle. Yamaguchi (US 5,899,286) discloses a power system for an electric vehicle. Tabata et al (US 5,935,040) discloses a power system for an electric vehicle. Zhang (US 6,064,934) discloses a torque regulating drive unit. Abe (US 6,356,817) discloses a power system for an electric vehicle. Collins et al (US 6,379,281) discloses a torque


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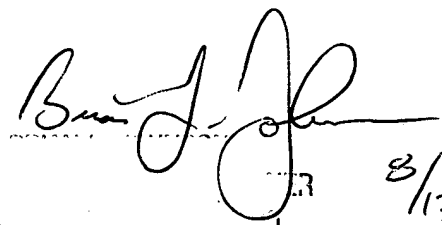
output controller for a vehicle. Supina et al (US 6,553,287) discloses a controller for a hybrid vehicle that considers accelerator pedal position.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly E Campbell whose telephone number is (703) 605-4264. The examiner can normally be reached on 9:00-5:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Johnson can be reached on (703) 308-0885. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.


KEC
August 12, 2003


8/13/03